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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/830,206

04/21/2004

Che-Kuei Mai

1176/202

9032

26588

7590

07/13/2007

LIU & LIU

444 S. FLOWER STREET SUITE 1750

LOS ANGELES, CA 90071

EXAMINER

LESPERANCE, JEAN E

ART UNIT

PAPER NUMBER

2629

MAIL DATE

DELIVERY MODE

07/13/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/830,206

Applicant(s)

MAI, CHE-KUEI

Examiner

Jean E. Lesperance

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 16-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 16-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The a amendment filed April 24, 2007 is entered and claims 1-14 and 16-21 are pending.

Allowable Subject Matter

2. The indicated allowability of claims 1 and 7 is withdrawn in view of the cited reference(s). Rejections based on the cited reference(s) follow.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 11-14, and 20 are rejected under 35 U.S.C 102 (b) as being unpatentable over USPN 5,153,572 (Caldwell et al.”).

Regarding claim 1, Caldwell et al. teach a touch panel input device (touch sensitive control circuit Fig.1b (10), comprising:

a contact sensitive panel (touch panel Fig.1a (22)); and

a grounding conductor conductively coupled to the contact sensitive panel and configured to be conductively coupled to external ground (a ground shield (grounding conductor) (Fig.2 (42)) is directly connected or conductively coupled to the ground

terminal (2) of connector (40) and wherein a ground terminal 2 of connector P1 is connected with a ground shield 42 on contact carrier 26 (column 2, lines 53-55) wherein the first section represents the connection from the ground shield 42 to the touch panel 22 and the second section represents the connection from the ground shield to the ground terminal 2.

Regarding claim 2, Caldwell et al. teach the contact sensitive panel (touch panel Fig.1a (22)) comprises a first substrate exposed to contact by a user wherein (glass layer 24) where the user touches the touch panel (22), and wherein the grounding conductor is conductively coupled to the first substrate (the grounding shield (42) is connected to the touch panel (22) as seen in Fig.2.

Regarding claim 3, Caldwell et al. teach the grounding conductor is conductively insulated from the first conductive surface (the glass layer (24) with the touch panel (22) represent the first substrate is insulated from the grounding shield (42) by an adhesive layer (28), see Fig.2)

Regarding claim 4, Caldwell et al. teach a second substrate (the mylar contact Fig.2 (26) is electrically insulated from the first substrate(glass substrate Fig.2 (24)) and wherein the grounding conductor is conductively coupled to the second substrate (the grounding shield (42) is connected to the mylar contact (26)).

Regarding claim 11, Caldwell et al. teach the touch panel (touch panel Fig.2 (22), wherein the grounding conductor comprises a generally loop shaped structure (the ground shield (42) form a loop since the two ground shields are connected together and they are connected to the ground terminal (2) of the connector (40).

Regarding claim 12, Caldwell et al. teach the generally loop shaped structure is a complete closed loop (the ground shield (42) form a loop since the two ground shields are connected together to form a close loop and they are connected to the ground terminal (2) of the connector (40) as shown in Figure 2.

Regarding claim 13, Caldwell et al. teach the loop extends along the periphery of the contact sensitive panel (the ground shield (42) form a loop since the two ground shields are connected together to form a close loop along the periphery of the touch panel (22) shown in Figure 2.

Regarding claim 14, Caldwell et al. teach the contact sensitive panel (touch panel, Fig.2 (22)) comprises sensing lines that facilitate sensing relative changes in electrical properties arising from user contact within an active area of the contact sensitive panel covered by the sensing lines (every touch panel that touched by the finger of a user or a pen and can detect the location of the finger or pen has sensing lines that help to detect relative changes in electrical properties arising from user contact within an active area of the contact sensitive panel covered by the sensing lines, wherein the grounding conductor (the ground shield Fig.2 (42) is conductively coupled to the touch panel (22) outside the active area covered by the sensing lines where (the ground shield (42) is located outside of the active area. The touch pads (30 and 32) locate in the active area and the ground shield (42) is located at the extreme ends of the touch panel 22.

Regarding claim 20, Caldwell et al. teach a contact sensitive panel (touch panel Fig.2 (22)) comprising a first substrate (glass substrate Fig.2 (24)) having a first

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conductive surface (the surface of the touch panel (22) is being the conductive surface;
a grounding conductor (ground shield Fig.2 (42) coupled to the contact sensitive panel (22) and configured to be conductively coupled to an external ground (ground terminal 2) , wherein grounding conductor (42) comprises a first conductive layer (28) on the first substrate (24) on the same side as and insulated from the first conductive surface (the surface of the touch panel (22) is being the first conductive surface).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-10, 16-19, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent # 5,153,572 (Caldwell et al.) in view of US Patent # 5,844,175 by Nakanishi et al..

Regarding claim 5, Caldwell et al. teach all the claimed limitations with the exception of providing the second substrate comprises a second conductive surface, and wherein the grounding conductor is conductively insulated from the second conductive surface.

However, Nakanishi et al. teach the second substrate (lower substrate (1)) comprises a second conductive surface (the transparent conductive film (3b)), and wherein the grounding conductor is conductively insulated from the second conductive

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surface (the transparent conductive films have a difference in potential where the transparent conductive film (3b) can any number higher than 0V and the transparent conductive film (3a) is ground potential (grounding conductor) where the ground potential or grounding conductor is conductively insulated from the lower substrate (1).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the lower conductive film (3b) as taught by Nakanishi et al. in the touch panel 22) disclosed by Caldwell et al. because this would provide an analog-type transparent touch panel having a higher quality and produced at lower cost.

Regarding claim 6, Nakanishi et al. teach the contact sensitive panel (upper substrate (2) of the touch panel (400) further comprises a second substrate (lower substrate (1)) conductively insulated from the first substrate (upper substrate (2)), wherein the second substrate (lower substrate (1)) comprises a second conductive surface (transparent conductive film (3b)) facing the first conductive surface (transparent conductive film (3a)), and wherein the grounding conductor is conductively coupled to the second substrate and conductively insulated from the second conductive surface (the transparent conductive films have a difference in potential where the transparent conductive film (3b) can any number higher than 0V and the transparent conductive film (3a) is ground potential (grounding conductor) where the ground potential or grounding conductor is conductively insulated from the lower substrate (1) and is conductively coupled to the lower substrate (1). Same motivation as claim 5.

Regarding claim 7, Caldwell et al. teach a grounding shield Fig.2 (42) which comprises an adhesive layer (28) which is on the same side as the touch panel (22) of Figure 2. The prior art teaches all the claimed limitations with the exception of providing a second conductive layer on the second substrate on the same side as the second conductive surface, wherein the first and second conductive layers are conductively coupled.

However, Nakanishi et al. teach the second substrate (lower substrate (1)) comprises a second conductive surface (the transparent conductive film (3b)), and wherein the grounding conductor is conductively insulated from the second conductive surface (the transparent conductive films have a difference in potential where the transparent conductive film (3b) can any number higher than 0V and the transparent conductive film (3a) is ground potential (grounding conductor) where the ground potential or grounding conductor is conductively insulated from the lower substrate (1).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the lower conductive film (3b) as taught by Nakanishi et al. in the touch panel 22) disclosed by Caldwell et al. because this would provide an analog-type transparent touch panel having a higher quality and produced at lower cost.

Regarding claim 8, Nakanishi et al. teach the first and second conductive layers (3a and 3b) of Fig.2 are formed on the first and second substrates (1 and 2) along with the first and second conductive surfaces on the first and second substrates.

Regarding claim 9, Caldwell et al. teach the grounding conductor comprises a generally loop shaped structure ((the ground shield (42) form a loop since the two ground shields are connected together and they are connected to the ground terminal (2) of the connector (40) as shown in Figure 2).

Regarding claim 10, Caldwell et al. teach the loop extends along the periphery of the contact sensitive panel (the ground shield (42) form a loop since the two ground shields are connected together to form a close loop along the periphery of the touch panel (22) shown in Figure 2.

Regarding claim 16, Nakanishi et al. teach a display element operatively coupled to the touch panel, wherein locations on an active area of the contact sensitive panel correspond to locations on a display area of the display element (an analog-type transparent touch panel attached to a display device, such as a liquid crystal display device, which allows the user to input data in accordance with the display on the screen by using a finger or a pen (column 1, lines 9-13).

Regarding claim 17, Nakanishi et al. teach the display element is at least one of liquid crystal display element, plasma display element and cathode ray tube element (an analog-type transparent touch panel attached to a display device, such as a liquid crystal display device, which allows the user to input data in accordance with the display on the screen by using a finger or a pen (column 1, lines 9-13) where the display element is liquid crystal display element.

Regarding claim 18, Caldwell et al. teach a device controller coupled to the display system or the touch panel and configured to process data corresponding to an

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image to be rendered by the display system (an analog-type transparent touch panel attached to a display device, such as a liquid crystal display device, which allows the user to input data in accordance with the display on the screen by using a finger or a pen (column 1, lines 9-14), where a display device that allows a user to input data in accordance with the display on the screen by using a finger or a pen inherently has a device controller.

Regarding claim 19, Caldwell et al. teach the electronic device comprising at least one of a portable device, a display monitor and a user input device (a touch panel, Fig.2 (22) which is a user input device).

Regarding claim 21, Caldwell et al. teach all the claimed limitations with the exception of providing a second substrate having a second conductive surface facing the first conductive surface, wherein the grounding conductor comprises a second conductive layer on the second substrate on the same side as and insulated from the second conductive surface.

However, Nakanishi et al. teach the second substrate (lower substrate (1)) comprises a second conductive surface (the transparent conductive film (3b)), and wherein the grounding conductor is conductively insulated from the second conductive surface (the transparent conductive films have a difference in potential where the transparent conductive film (3b) can any number higher than 0V and the transparent conductive film (3a) is ground potential (grounding conductor) where the ground potential or grounding conductor is conductively insulated from the lower substrate (1).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the lower conductive film (3b) as taught by Nakanishi et al. in the touch panel 22) disclosed by Caldwell et al. because this would provide an analog-type transparent touch panel having a higher quality and produced at lower cost.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Lesperance whose telephone number is (571) 272-7692. The examiner can normally be reached on from Monday to Friday between 10:00AM and 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (571) 272-7691.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(571) 273-8300 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology Center 2600 Customer Service Office

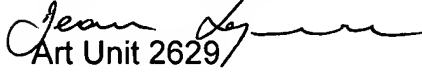
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whose telephone number is (703) 306-0377.

Jean Lesperance

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Date 6/27/2007



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